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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#9  
Produce  
P. J. J. J.  
6-12-02

In re the Application of

Hiroaki KAJIURA

Application No.: 10/020,983

Filed: December 19, 2001

Docket No.: 111471

For: VEHICLE MOTOR-GENERATOR APPARATUS UTILIZING SYNCHRONOUS  
MACHINE HAVING FIELD WINDING

PRELIMINARY AMENDMENT

Director of the U.S. Patent and Trademark Office  
Washington, D. C. 20231

Sir:

RECEIVED  
APR - 8 2002  
TC 2800 MAIL ROOM

Prior to initial examination, please amend the above-identified application as follows:

IN THE DRAWINGS:

Please correct Figures 11 and 14 as set forth in the attached Request for Approval of  
Drawing Corrections.

IN THE SPECIFICATION:

Page 32, line 18 through page 33, line 9, delete current paragraph and insert therefor:

With this embodiment, designating the maximum operating temperature of the  
insulation film of the field winding 111 as  $T_{max}$ , it must be ensured that the level of field  
current that is passed during electric power generating operation by the synchronous machine  
is limited to a value, determined by a specific value (referred to herein as  $DUTY_{max}$ ) of duty  
ratio of ON/OFF switching of field current, whereby the temperature of the field winding 111  
does not exceed a temperature value that is obtained by subtracting an amount  $\Delta T$  from  
 $T_{max}$ . Here,  $\Delta T$  is a temperature increase amount that is essentially determined by thermal